

REMARKS

Claims 1-21 are pending in the present application. Claim 5 has been amended to delete a period that was a typographical error. Claims 2, and 16-21 have been canceled without prejudice or disclaimer. Claims 22-28 have been added in the present Amendment. Upon entry of the new claims, claims 1, 3-15, and 22-28 will be pending.

Newly added claim 22 is supported, for example, by Example 2. Newly added claim 23 is supported, for example, by page 62, first paragraph and second full paragraph regarding a uridine residue, and Example 2, regarding 5% of the positions. Newly added claim 24 is supported, for example, by page 61, lines 18-24. Newly added claims 25-26 are supported, for example, by Example 1, pages 61, last paragraph to page 62, first paragraph, and by figure 4. The assertion in newly added claim 27 that the linkers are linked to both the agent and the scaffolding component at a 5-position of a uracil moiety of a uridine residue is supported by page 28, line 1. The assertion in claim 27 that there are 2 linkers and 2 agents is supported by Example 2, which indicates that the central 36 core positions include 1 rare base containing a linker at a frequency of 5%, thus providing for 2 rare nucleotides per complex. Furthermore, Example 3 indicates that these nucleic acid subunits were reacted with threonine to form complexes, thereby forming complexes with two threonine residues. Newly added claim 28 is supported by Example 4, which illustrates methods for identifying complexes that bind a thrombin target.

Applicant elects with traverse, Group I, Claims 1 and 3-9, drawn to a method for identifying a complex (a morphatide) from a library of complexes (morphatides), wherein the morphatide includes a scaffolding component, a linker component, and an agent molecule, classified in class 435, subclass 435. Furthermore, regarding a scaffold species elections, Applicant elects, with traverse, a nucleic acid scaffold having a 5' and 3' flanking region with a sequence as set out in SEQ ID NOs:1 and 2 and a randomized middle sequence of 36 nucleotides that includes 3 of the 4 bases occurring at similar frequency and one of the four bases occurring at a rare frequency of 5% (i.e. 2 positions). Regarding a number and type of linker, Applicant elects, with traverse, two identical linkers that are formed by reacting phenylboronic acid with salicylhydroxamic acid, each linker being bound to a uridine residue on the scaffold through a 5-

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position of a uracil base of the uridine residue. Regarding the number and type of agents, Applicant elects, with traverse, two identical nucleic acid agent molecules, each bound to a linker through a 5-position of a uracil base of a uridine residue present on each agent molecule. Regarding a target, Applicant elects, with traverse, a thrombin target. Regarding the type of interaction, Applicant elects, with traverse, a morphatide that binds to, or associates with the agent. Regarding a method for separation, Applicant elects, with traverse, chromatography as a method for separating bound from unbound morphatides.

Applicant asserts that pending claims 1, 3-9, and 22-28 are read on by the elected group and species. Therefore, Applicant respectfully requests consideration and examination of these claims. Furthermore, Applicants respectfully request rejoinder of Groups III (claims 10-13 and 15) and IV (claim 14), which add steps related to modifying the scaffolding component and rescreening, with Group I, because it would not be an undue burden on the Examiner to search the methods of these groups along with Group I.

With respect to the requirement to elect a particular sequence of the nucleic acid scaffold, Applicant respectfully asserts that such a restriction is not proper because claim 1 is drawn to methods that include preparing *a library* of morphatides that each have a scaffolding component with one or more regions of randomized sequence. Therefore, it is not possible to elect a specific and complete nucleotide sequence of a single scaffolding component. Accordingly, Applicant respectfully requests that the Examiner consider the present Amendment responsive even though a complete nucleotide sequence of a scaffolding component is not elected. Rather, the present Response elects portions of the nucleotide sequence of the scaffolding component (i.e., SEQ ID NO:1 and SEQ ID NO:2) and particular arrangement of nucleotides within the scaffolding component, that are present in each member of the library in certain embodiments of the invention.

Regarding the traversal of the species elections, Applicant respectfully asserts that the Office Action incorrectly analyzes the claims of Group I as if they were claims directed at morphatides, rather than claims directed at methods for identifying morphatides. The recited species have identical operation, function, and effect in the recited methods claims. Therefore, the species should not be restricted.

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In view of the amendments and the above remarks, it is submitted that the claims are in condition for allowance and a notice to that effect is respectfully requested. The Examiner is invited to contact Applicant's undersigned representative if there are any questions relating to this application. Please charge any additional fees, or make any credits, to Deposit Account No. 50-1355.

Respectfully submitted,



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